

Figure 1

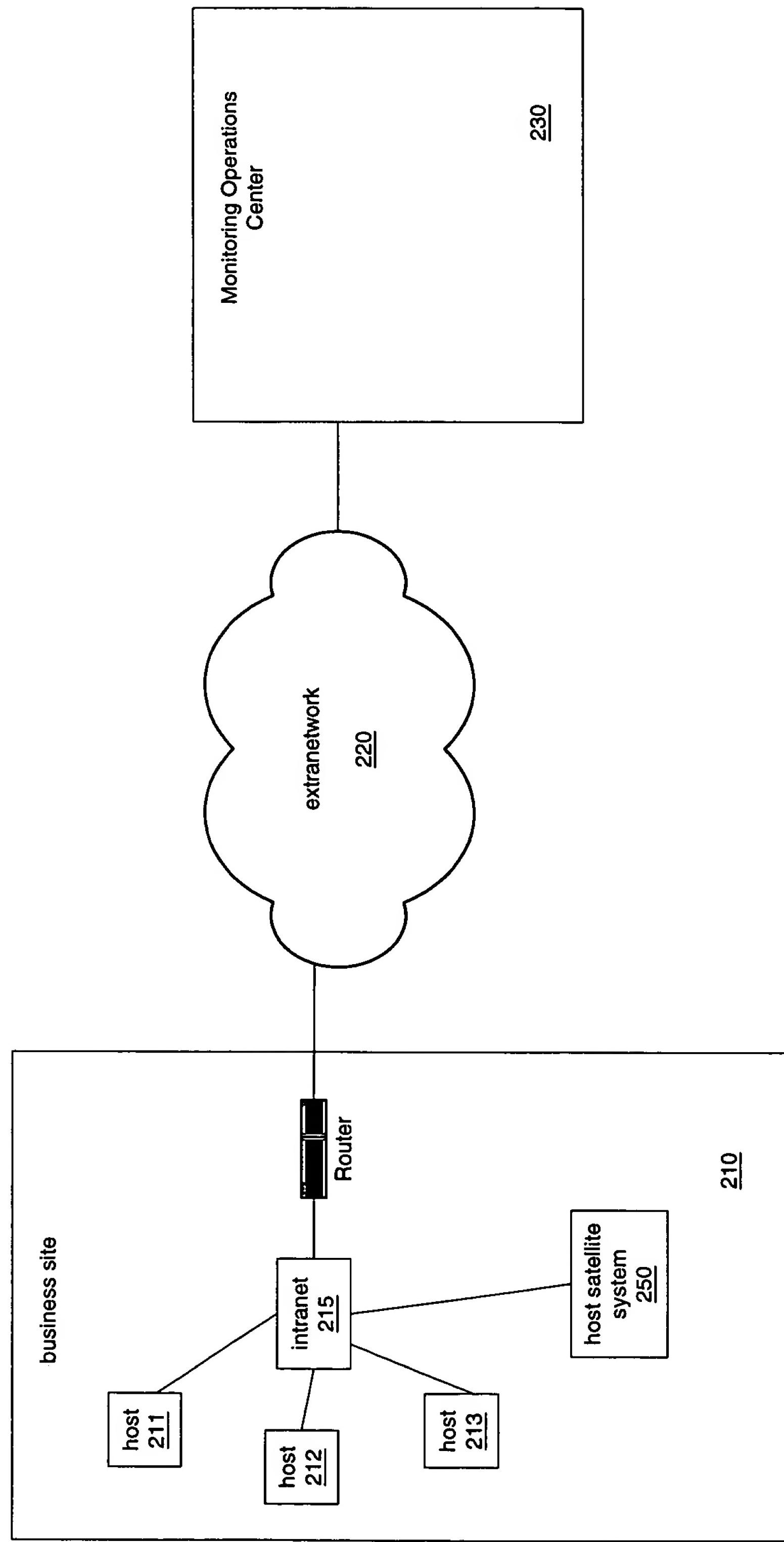


Figure 2A

TEST	PORT #	MONITORING
check_dig	NP	Tests host DNS
check_disk	NP	Checks disk space (%) host system and generates alert if percentage is above threshold values.
check_dns_resolution	NP	Obtains IP address for specified host/domain query using nslookup. Can specify optional DNS server or default to specified server.
check_ftp	21	Tests an FTP connection with the host and generates an alert if answer time is above threshold values.
check_printer	NP	Tests the status of a printer.
check_http/https	80 (http) 443 (https)	Test the HTTP service on the host. Test normal and secure servers and generates an alert if the answer time is above a threshold value. Follows redirects, searches for strings and regular expressions, checks connection times, and reports on certificate expiration times.
check_imap	143	Tests the IMAP4 service on the specified host and generates an alert if answer time is above threshold values.
check_ircd	6667	Tests IRC daemon on the host and returns an alert of the number of users is above threshold values.
check_nntp	119	Tests the network news service on host and generates an alert if answer time is above threshold values.
check_ntp	NP	Tests Network Time service and generates an alert when offset(s) is above threshold values.
check_oracle	NP	Tests remote or local TNS status and local database status.
check_pop	110	Tests POP mail service on host and generates an alert if answer time is above threshold values.
check_postgresql	5432	Tests postgres SQL service on host and generates an alert if answer time is above threshold values.
check_real	554	Tests the IMAP4 service on the specified host (at port 554) and generates an alert if answer time is above threshold values.
check_rpc		Tests if a RPC service is registered and running on host using rpcinfo command.
check_smtp	25	Tests the SMTP mail service on host and generates an alert if answer time is above threshold values.
check_snmp		Tests SNMP service on host and generates an alert if answer time is above threshold values.
check_ssh	22	Tests SSH service on host and generates an alert if request times out.
check_tcp	Any	Tests TCP connections with host and generates an alert if answer time is above threshold values.
check_time	NP	Tests time port on host and generates an alert if answer time is above threshold values.
check_udp	Any	Tests UDP connection on host and generates an alert if answer time is above threshold values.

Figure 2B

	PARAMETER	THRESHOLD LEVELS	THRESHOLD VALUES
241	Disk Utilization	OK Warning Critical	< 75% 75% 90%
	Processor Utilization	OK Warning Critical	< 70% 70% 85%
	Load	OK Warning Critical	< 0.8 0.8 1
242	Memory Utilization	OK Warning Critical	< 20% 20% free 10% free
	Swap Space	OK Warning Critical	< 20% 20% free 10% free
	Number of Users	OK Warning Critical	< 10 users 10 users 20 users
243	Number of Processes	OK Warning Critical	< 400 processes 400 processes 700 processes

Figure 2C

Figure 3. Digital Processing System

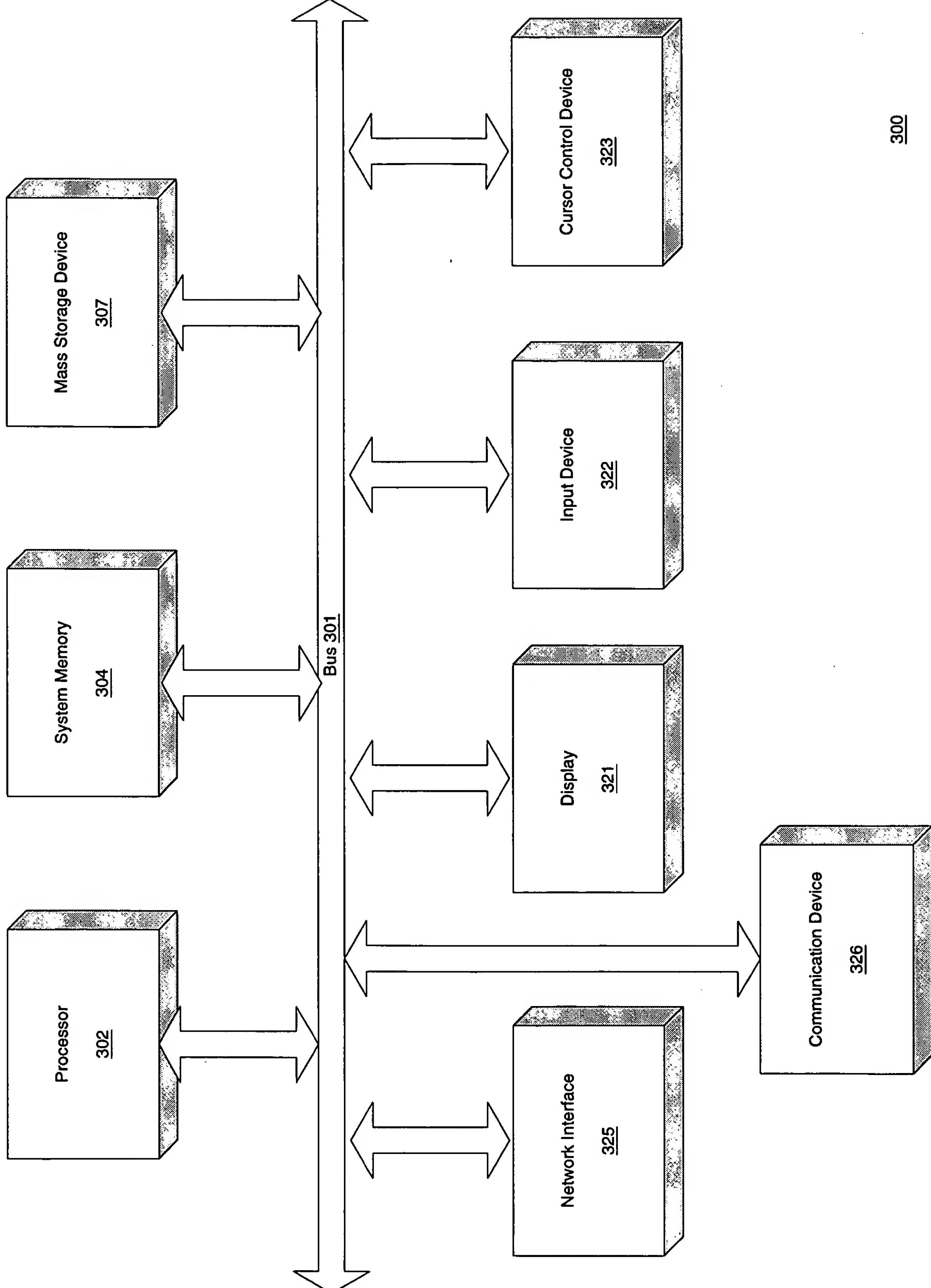


Figure 3

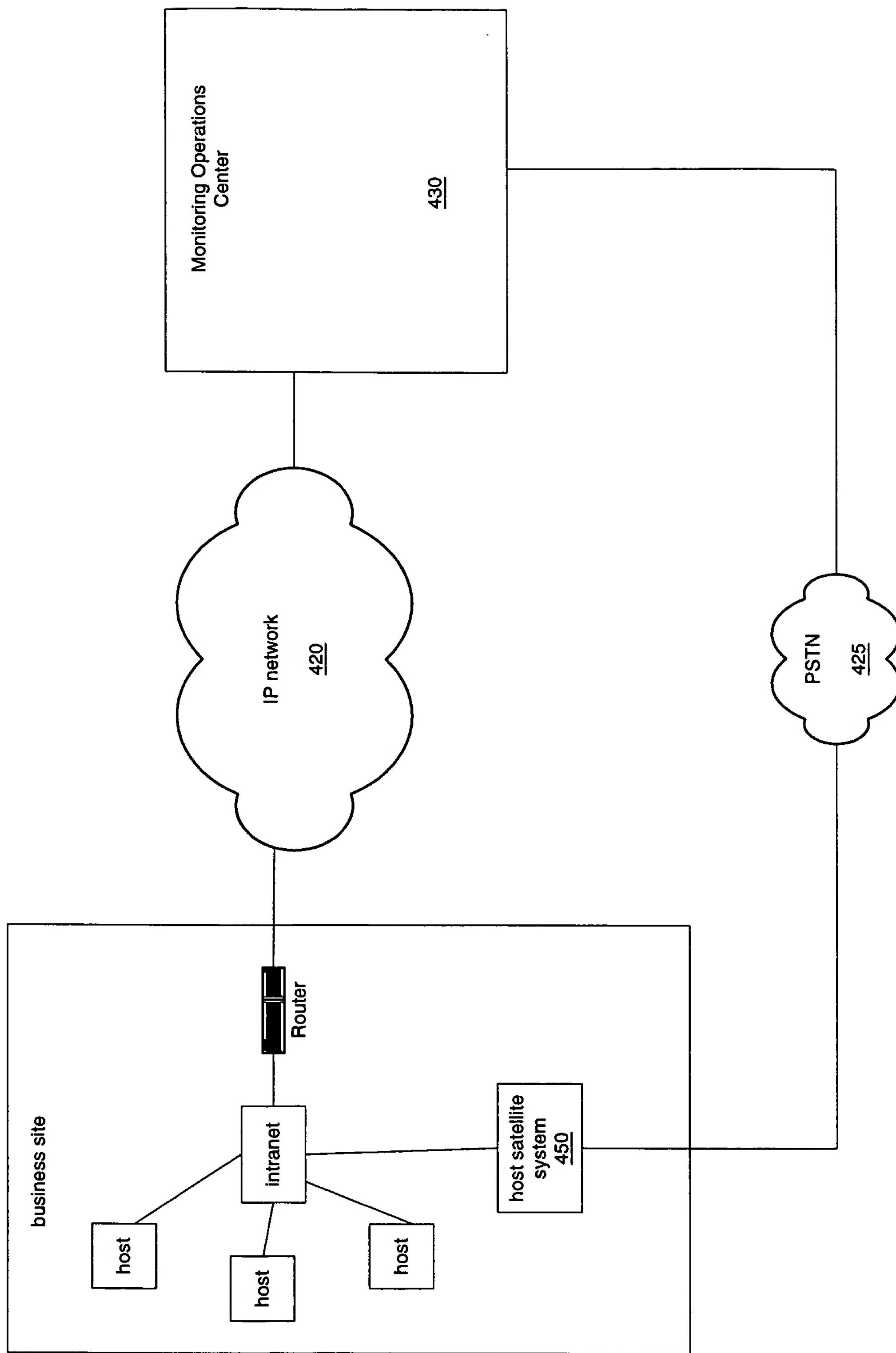
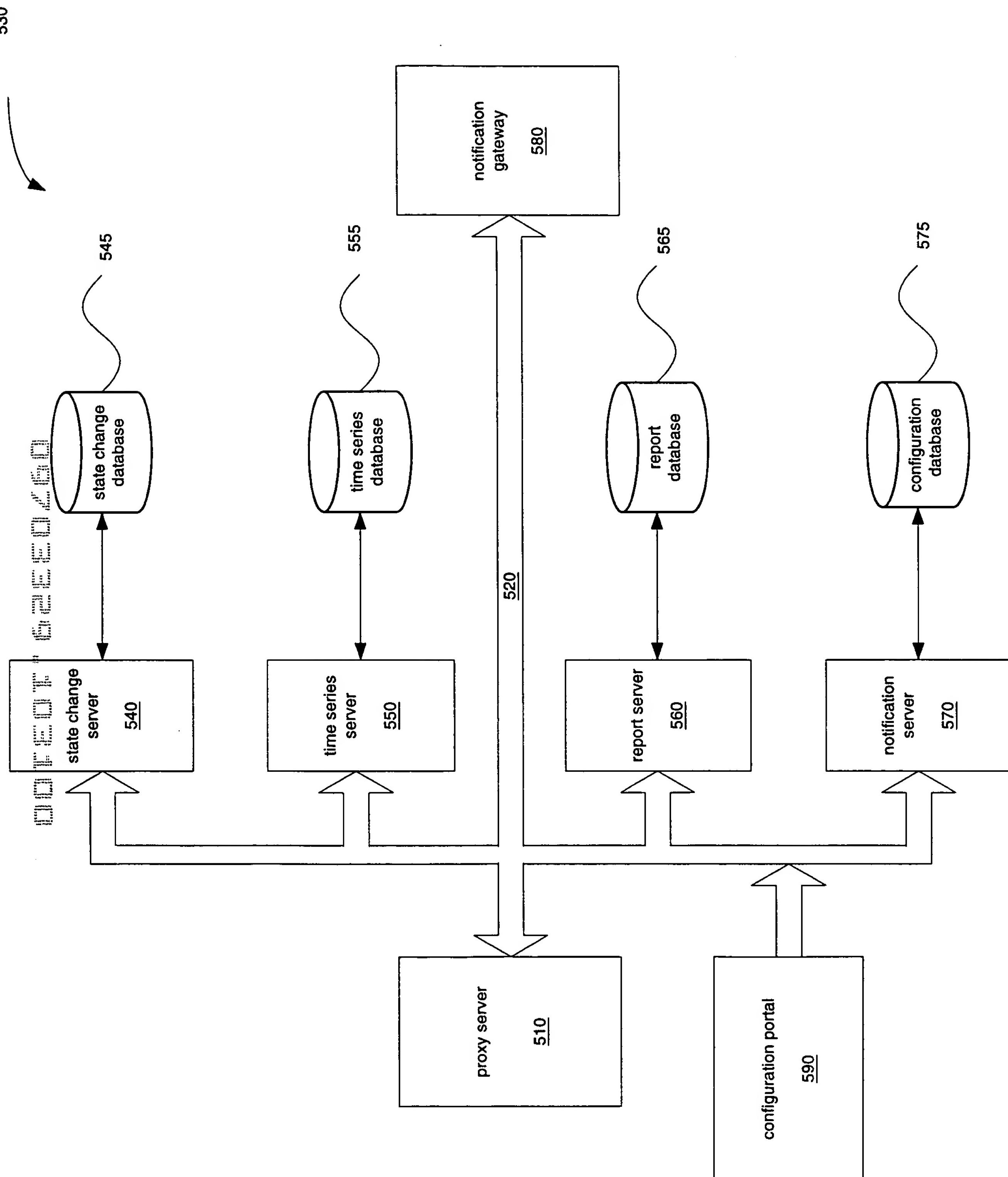


Figure 4

Figure 5



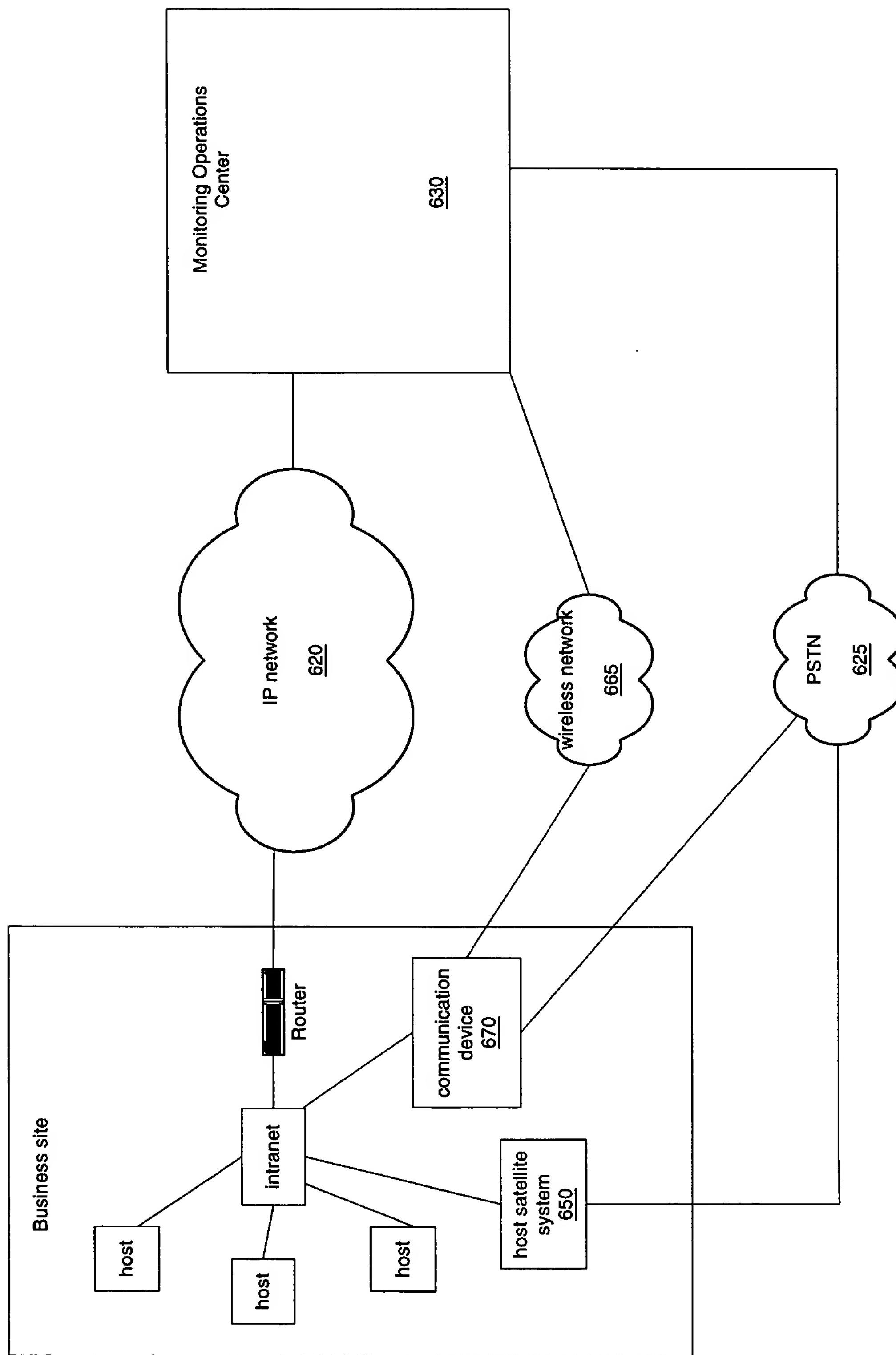


Figure 6

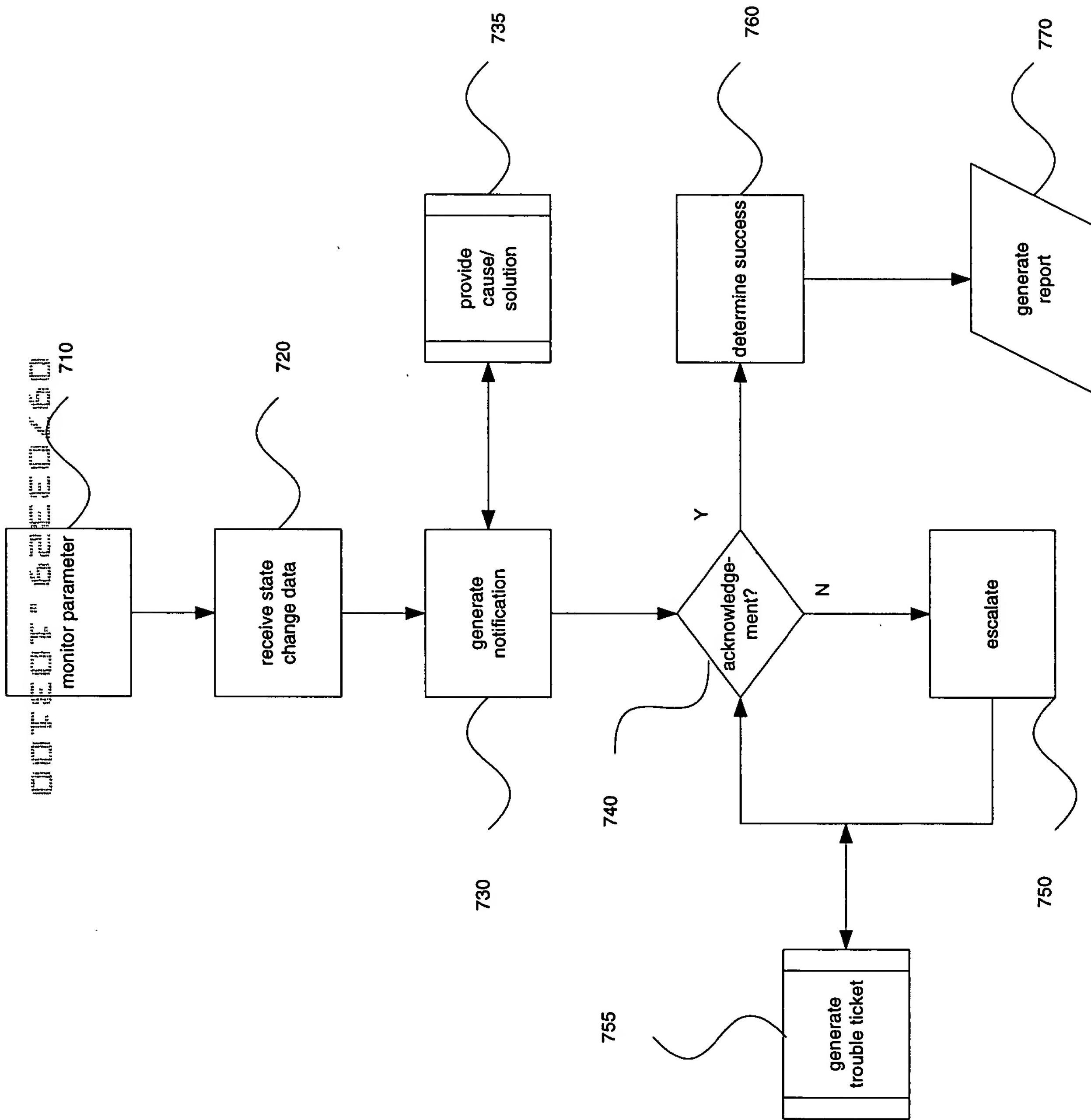


Figure 7